Engineering has reviewed the plans for the Mini Pearl project submitted August 28, 2019 and have the following comments:

 Correction – The Pearl High Density Redevelopment Permit (SWP 2018015R1) needs to be corrected and changed back to a Drainage Plan. The Pearl is predominantly residential and therefore the 10,000sf on-site newly constructed impervious surface threshold is not applicable. The Pearl/Mini Pearl combined project may qualify as High Density Redevelopment if the total disturbed acreage exceeds one acre. Please provide verification that the combined disturbed acreage does not exceed an acre. I will reissue a permit revision for The Pearl now and a permit modification for The Pearl/Mini Pearl common plan of development at the conclusion of the review. No fees are required.

## **Stormwater Management Permit Application Form**

- 2. I. General Information; #1 & #2: The Mini Pearl and The Pearl will need to be combined under the same permit since they are part of a common plan of development. Please update the Project Name and Project Location on the SW Application.
- 3. II. Permit Information;
  - a. #1: Revise the type of project from High Density to Drainage Plan.
  - b. #2: The project will be covered by The Pearl permit issued by the city. Check 'yes' and add 2018015R1 to the CoW entry.
- 4. IV. Project Information;
  - a. #1-#13: Combine the Pearl and the Mini Pearl numbers.
  - b. #14: If the pervious pavement shown on the Mini Pearl site plan is to be a permitted SCM then this table must be completed. List each pervious pavement SCM separately for both projects.

## Supplement-EZ Form

5. If taking credit for the pervious concrete, please submit a completed Supplement Form. SCMs from both projects can be entered into one Supplement form.

## **HGL Calculations**

6. Note only: Technical Standards require HGL calculations for the 10 and 50-year design storms. Calculations provided were for the 25 and 100-year. Since HGL is satisfactory in both, resubmittal of 10 and 50 will not be required.

## <u>Plans</u>

- 7. C2:
  - a. Verify existing SD system in 4<sup>th</sup> Street isn't clogged or in need of maintenance or repair before connecting new SD pipes.
  - b. Engineering would be in favor of smaller flares on the driveways as long as the largest vehicle entering and exiting the site can do so without the tires leaving the apron and rutting the plaza strip. Variance response will be based on Autoturn analysis.
  - c. No water meter boxes, cleanouts, manholes, etc. should be placed in sidewalks or driveways due to the potential for differential settlement that may create a tripping hazard and challenges for proper jointing of concrete slabs.
  - d. The Wooster Street sidewalk must be placed in a public pedestrian access easement as the sidewalk is located outside of the public r/w.
  - e. The Pearl construction plans must be updated to reflect the changes proposed by the Mini Pearl.

- f. A header curb must be added between the pervious concrete and the conventional asphalt. Add a detail for the header curb to the plan set.
- g. Is vertical curbing in front of the roll-out cart enclosure or is this a header curb? The type of curbing has not been specified on the plans.
- h. Show the driveway sidewalk within the driveway aprons.
- i. Add spot grades along both sides of the proposed sidewalks to demonstrate that longitudinal and cross slope requirements are met.
- 8. C2/C3: Update the Site Data to be consistent with the SW Application and the combination of both Pearl projects.
- 9. C3:
  - a. Relocate the approval blocks to eliminate the overlap of project linework.
  - b. The one-way exit drive has a steep slope. Will the runoff actually drain to the new inlet or just bypass it? Would a trench drain across the drive capture more runoff?
  - c. Show the extents of the proposed grading on the north side of the one-way driveway. Will grading be required on the adjacent property? Is a retaining wall needed?
- 10. C5: Update the sidewalk detail as there is linework missing,
- 11. Provide SCM and inlet drainage area maps.

Please submit one complete set of plans, stormwater application, calculations and any other supporting documentation to Engineering for additional review. Please call or email if there are any questions. Thank you.